

# ESRI ORMAP Parcel Fabric Check and Export Tool Draft

4/28/16

**Developed by Polk County and Lane Council of Governments**

## Objectives

1. Operate within the ESRI Parcel Fabric Plan Environment
2. Allow users to check if features are correct
3. Export features from the parcel fabric so that they can be imported to the ORMAP ArcMap Environment

## Contents of ZIP file

- Documentation – Contains documentation for application as it is built
- Inputs – Parcel fabric Data – PolkCountyBaseMemoData.gdb
  - ORMAP Templates and exported feature classes –ParcelFabricExport.gdg
- OPFT – Application software to review data and export to ORMAP

## What you should know to use this tool

- ArcMap 10.3
- A basic understanding of Parcel Fabric
- A basic understanding of Python and Add-Ins

## Steps that will be reviewed in this document

Customizing the application to work at your site  
Installing the application  
Reviewing the data  
Export  
Examination of the exported features  
Debug Notes

## Development Environment

ESRI Arcmap 10.3  
Using ESRI Add-in Technology  
Python Script Version: 2.7.8

## Demo Location

C:\fabricexport

## FTP Location

Development Code  
<ftp://ftp.co.polk.or.us/>

Zip files contained in OPFT Folder – Currently Using Version 1

Install the contents of the zip file on your C drive and should include all of the changes needed to run the application on c:\fabricexport. –

## Re-Installing

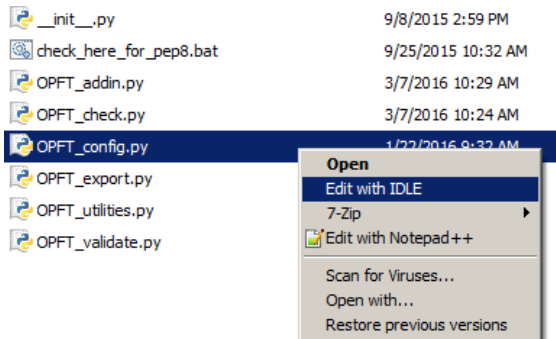
Before “re-installing” an add-in make sure ESRI processing are turned off using the task manager.

ArcMap.exe *32	Andersd	04	164,900 K	ArcMap
ArcGISCacheMgr.exe *32	Andersd	00	920 K	ArcGIS Cache M
chrome.exe *32	Andersd	00	154,712 K	Google Chrome

## 1. Customizing the application to work at your site

Like all python based add-ins the application has to setup to operate with data in specific locations.

- Copy the contents of the zip file to a new directory. For this example it will be: C:\FabricExport
- Edit the Configuration python to set the correct path for your location.
  - Go to C:\FabricExport\OPFT\Install
  - Edit the OPFT\_config.py python file. Please use your FAVORITE python editing tool. In this example we will use IDLE



- Change the paths to operate on the new location C:\Fabric Export

```
# Export Inputs...

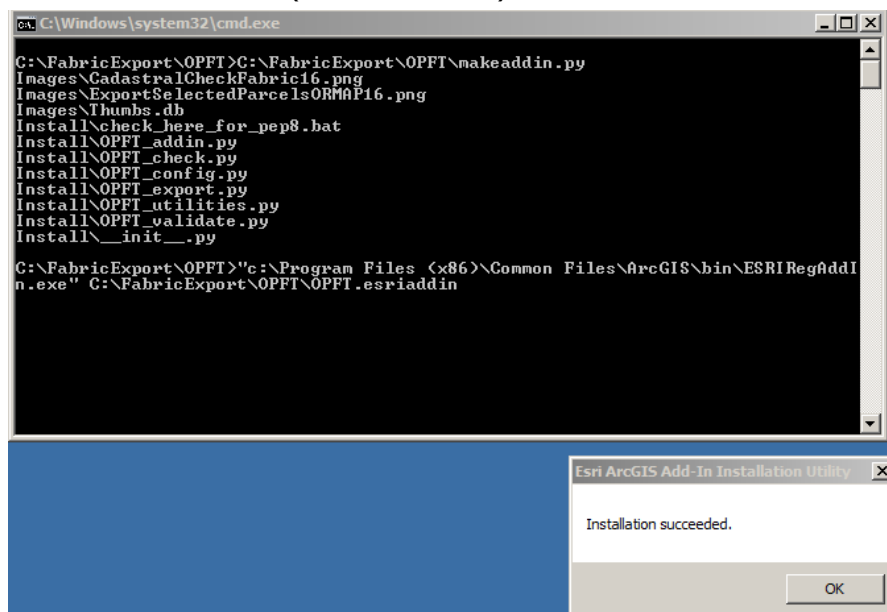
# Note: Preceed quoted strings with the r character
FABRIC_WORKSPACE = r"G:\projects\Counties\Polk\ORMAP_ParcelFabricTools\Inputs\PolkCountyBaseDemoData.gdb"
FABRIC_PLANS_FCNAME = r"PolkCountyPlans"
FABRIC_PARCELS_FCNAME = r"PolkCountySurveys\PolkCounty_Parcel"
FABRIC_LINES_FCNAME = r"PolkCountySurveys\PolkCounty_Lines"
FABRIC_PARCEL_DIMENSIONS_FCNAME = r"PolkCountySurveys\ParcelDimensions"

# Export Outputs...

# Note: Preceed quoted strings with the r character
EXPORT_WORKSPACE = r"G:\projects\Counties\Polk\ORMAP_ParcelFabricTools\Inputs\ParcelFabricExport.gdb"
```

Save your results

- Run the Bat file to install the application
  - Got to the C:\FabricExport\OPFT directory
  - Run the install.bat file (double click on it)

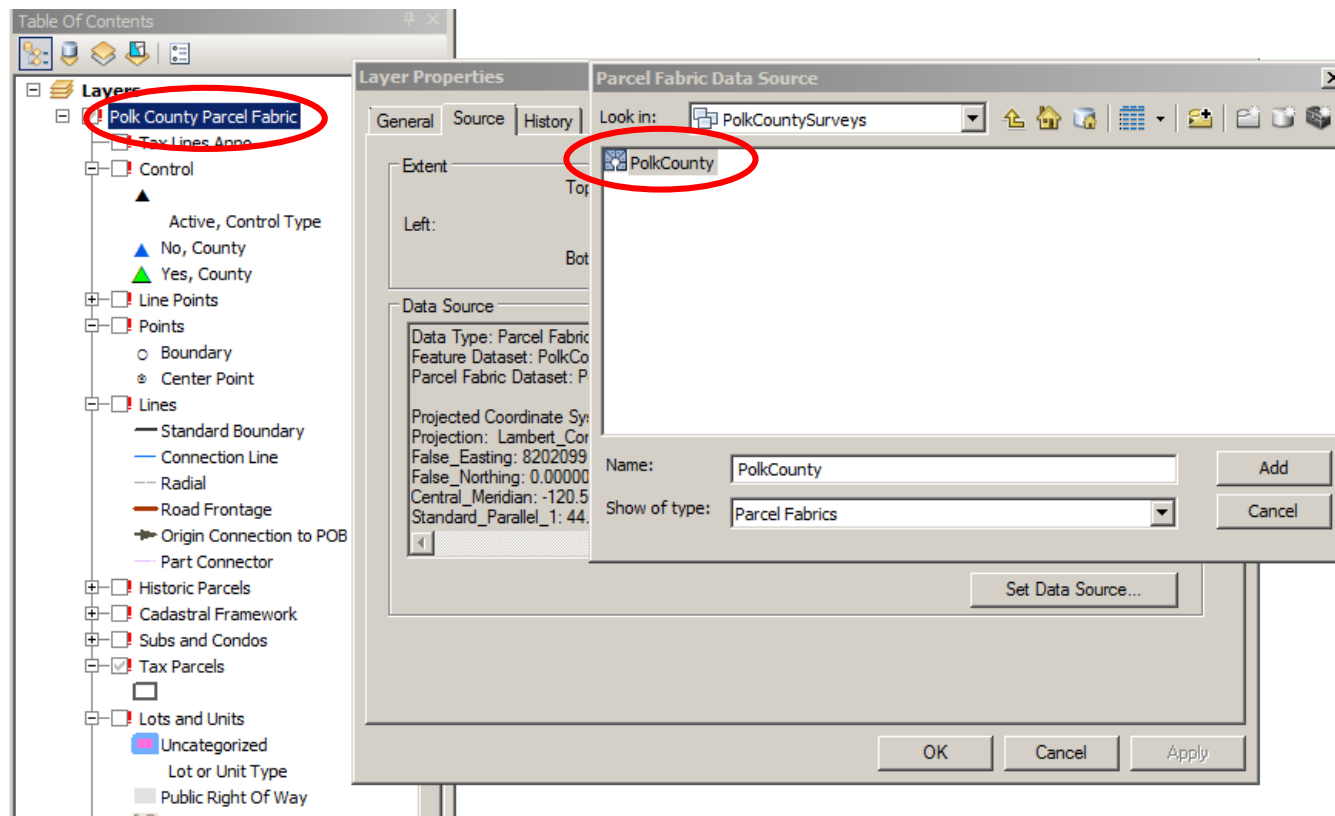


- Close the "Installation Succeeded" window

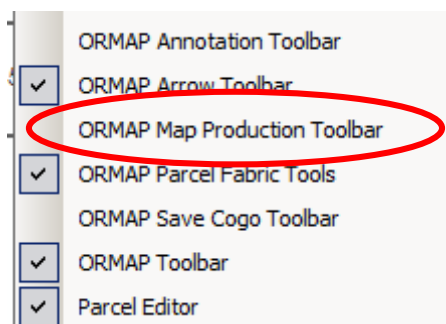
## 1. Customizing the application to work at your site

Like all python based add-ins the application has to setup to operate with data in specific locations and must be added to ArcMap Map file.

- Open the Map File located in the C:\FabricExport\Inputs Directory (BaseDemoDataExport.mxd)
- Change your data paths of the Polk County Parcel Fabric Property as it exists in:  
C:\FabricExport\Inputs\PolkCountyBaseDemoData.gdb... Polk County Surveys... Fabric: Polk County



- Add the tool to your map menu – Right click on tool bar and add:



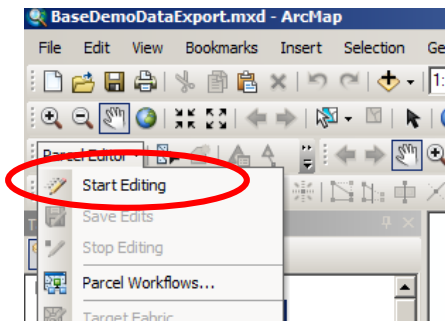
- The tool bar will appear and you are ready!



## 2. Error Check

Before export you need to check if the data is ready by selecting the plan and its parcels and running the "check for ORMAP function".

a. Start editing the fabric

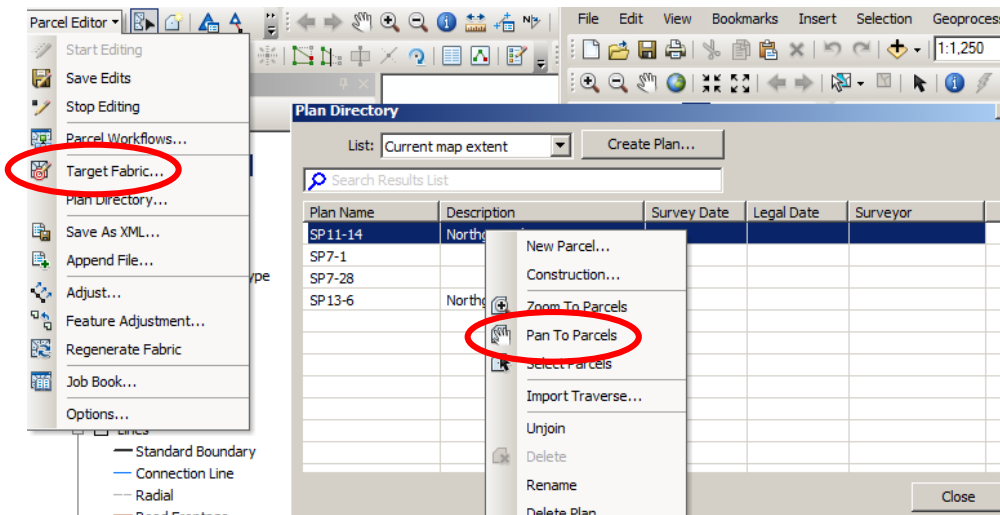


b. Select the parcels for a plan.

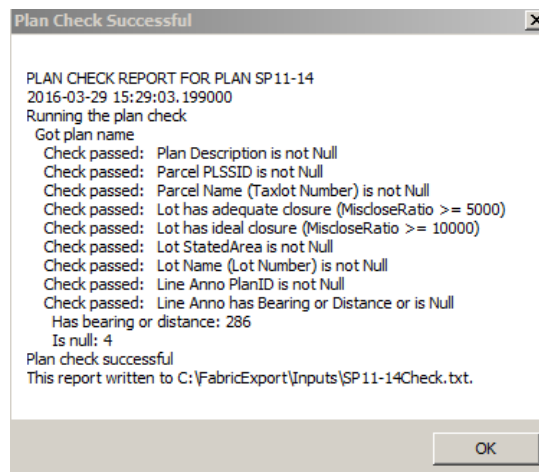
a. Select "Plan Directory"

b. Select a plan "SP11-14" (select with one key)

c. Select Parcels (Right click to select parcels)



c. Check for ORMAP: The check for ORMAP checks a number of issues and reports. Please note that this applications takes a bit of time to run. It is OK if the anno fails as not all lines of annotation.

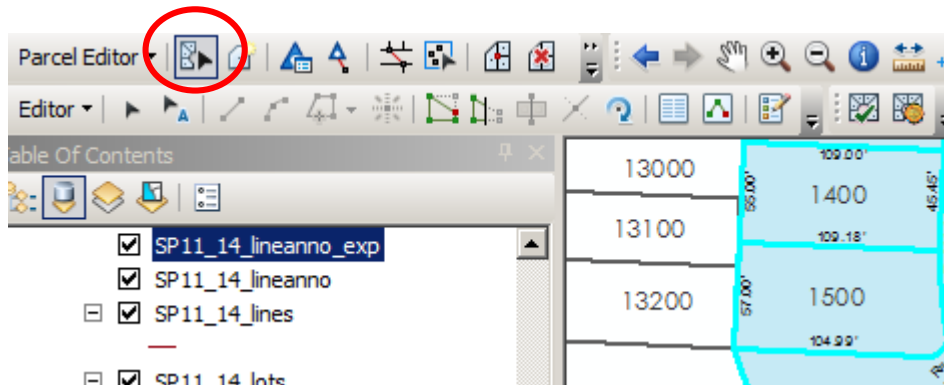


The check information is also contained in a text file as reported.

### 3. Export to ORMAP

After the check has been run you are ready to export.

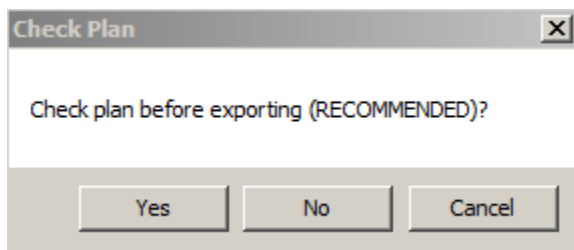
- a. You will need to select a taxlot within your plan for this to run using the parcel editor select tool. This is an issue with the the underlying software. After clicking select parcel features just click in one of the taxlots in the plan.



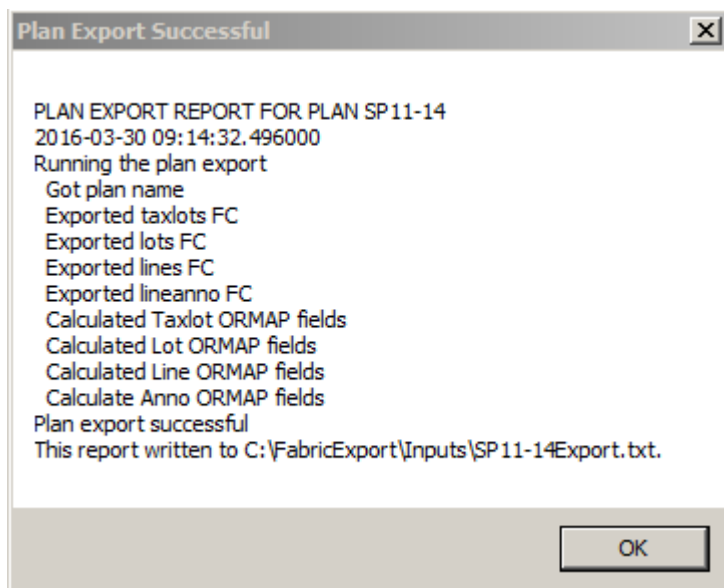
- b. Press the export button. Please note that this will overwrite the previous export.



- c. You can either re-run the check at this time or not.



- d. The export is run and a copy of the summary will be written to a file as noted!

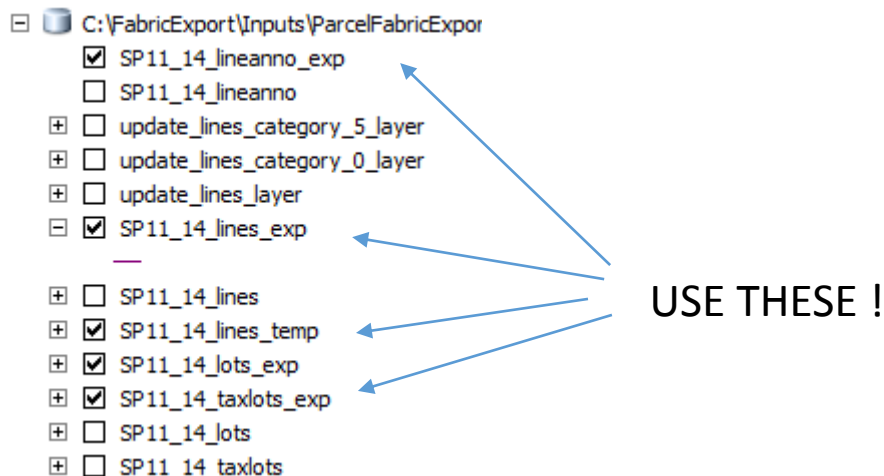


**NOTE:** Due to some interesting issues in the underlying technology you can ONLY run this tool ONCE per ArcMap Session. To run it on another plan you must first exit and re-enter. YES – we are working on this!

#### 4. Looking at what got made!

The export adds the feature classes to an export geodatabase (C:\FabricExport\Inputs\ParcelFabric.gdb). The feature classes that are created are added to the Table of Contents (at the bottom)

The goal of this process is to create features that are totally compatible with ORMAP. We continue to work on this and will have future updates. The application is still running in "debug" mode so we have NOT deleted temporary datasets.



SP11\_14\_LineAnno\_exp – Bearing and distance annotation for the exported feature class. If bearing exists it will be copied.  
If it does not exist it won't be.

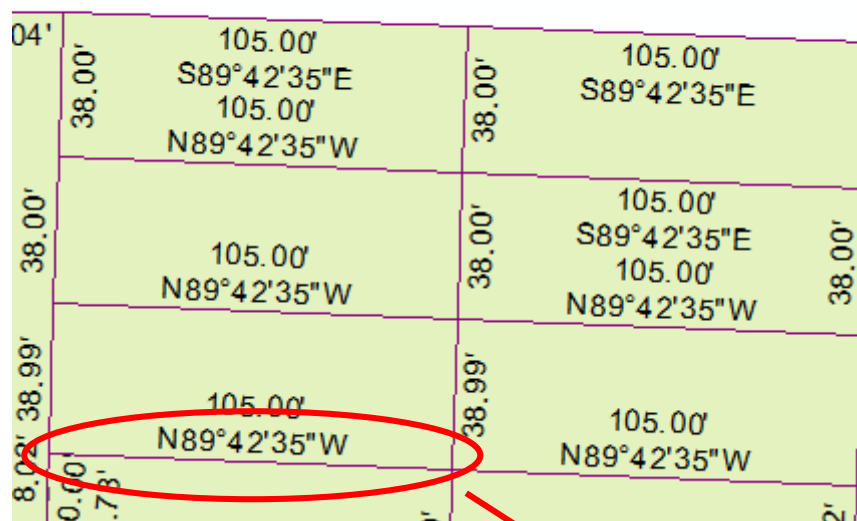
Sp11\_14\_Lines\_exp – Line features and attributes.

Sp11\_15\_Taxlots\_exp – Exported taxlot features with attributes

Sp11\_15\_Taxlots\_exp – Exported taxlot features with original attributes.

SP11\_14\_lots\_exp – exported lots

ORMAPTEMPLATES – Feature classes that get used for creating the ORMAP compatible features.



#### ORMAP ATTRIBUTES

Side	<null>
Source	SP13-6
SourceType	<null>
ReliaCode	<null>
AutoDate	<null>
AutoMethod	CGO
AutoWho	<null>
Shape_Length	105.005089

## 5. DEBUG NUTES

Turn on debug and verbose modes (handy for testing without having to close ArcMap and rebuild the addin)...  
(Examples)

```
>>> OPFT_addin._DEBUG = True # This is debug mode for just the addin module.
>>> OPFT_addin._VERBOSE = True # This is verbose mode for just the addin module.
>>> OPFT_addin.ocheck._DEBUG = True # This is debug mode for the check module.
>>> OPFT_addin.ocheck._VERBOSE = True # This is verbose mode for the check module.
>>> OPFT_addin.oexport._DEBUG = True # This is debug mode for the export module.
>>> OPFT_addin.oexport._VERBOSE = True # This is verbose mode for the export module.
```

Turn off report to file (not sure why you would want to)...

```
>>> OPFT_addin._REPORT_TO_FILE = False # This is turns off reporting to files.
```

Check the config validity (allows the Check Plan Button to enable)...

```
>>> import OPFT_addin # Optional step. I didn't need it, but David C did.
>>> mxd = arcpy.mapping.MapDocument("current")
>>> config_valid, validate_msg = OPFT_addin.ovalidate.ValidateConfig(mxd, True, True)
>>> print config_valid
True
>>> print validate_msg
Checking OPFT configuration validity...
PARCEL_LAYER_NAME found in map
FABRIC_WORKSPACE found
FABRIC_PLANS_FCNAME
found in FABRIC_WORKSPACE
FABRIC_PARCELS_FCNAME
found in FABRIC_WORKSPACE
FABRIC_LINES_FCNAME
found in FABRIC_WORKSPACE
FABRIC_PARCEL_DIMENSIONS_FCNAME
found in FABRIC_WORKSPACE
EXPORT_WORKSPACE found
ORMAP_TAXLOT_TEMPLATE_FCNAME
found in EXPORT_WORKSPACE
ORMAP_LOT_TEMPLATE_FCNAME
found in EXPORT_WORKSPACE
ORMAP_TAXLOTLINE_TEMPLATE_FCNAME
found in EXPORT_WORKSPACE
ORMAP_ANNO_TEMPLATE_FCNAME
found in EXPORT_WORKSPACE
```

An even simpler way to do the above is this (reports to a dialog and a file)...

```
>>> OPFT_addin.ConfigCheck()
```

Check the plan selection validity (allows the Export Plan Button to enable)..  
(Example where one parcel is not selected for the plan)

```
>>> select_valid, select_valid_msg, select_plan_ID =
OPFT_addin.ovalidate.ValidPlanParcelSelection(True, True)
>>> print select_valid
False
>>> print select_valid_msg
Checking that only all parcels for a single plan are selected...
Tax Parcels does not have all 31 features selected in 1 plan.
>>> print select_plan_ID
None
```